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ADDRESS OF WELCOME *

ARTHUR FREEBORN CHACE

President, The New York Academy of Medicine

THE New York Academy of Medicine has chosen for its Seventeenth Annual Graduate Fortnight the enormously important subject: *Infectious Diseases and Their Treatment*.

We are in the midst of a period of world strife, and we are overwhelmed by the enormous destruction which it involves. Modern warfare is indeed devastating, but it seems appropriate to observe that in the history of mankind the infectious diseases have proven themselves to be even more destructive than the worst of wars. It is undeniable that all the destruction of all the wars that mankind has waged does not even remotely approximate the destructiveness of the infectious diseases. In witness, we need to recall but a few instances of pandemic and epidemic diseases: the Black Death, that destroyed more than a quarter of the population of the world, the great epidemics of typhus, cholera, typhoid and yellow fever, that have from time to time raged in Asia, Europe and in the Western Hemisphere. Think also of the great epidemics of cholera infantum which annually afflicted and destroyed countless thousands of young children. In this very time of universal strife and conflict it may be some slight bolster to our faith and hope to recognize that if we have not been able to curtail

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the destructiveness of war, we have at least made great headway in our conquest of the even greater destroyer, the infectious diseases.

It is nigh on to a century since the first advance against the infectious diseases was made. The achievements of this short century of progress are marked by three major epochs. The first is represented by the monumental works of Pasteur, Koch, and Lister, and marks the recognition of the microbic causes of infectious diseases and their control by the methods which we collectively call "antiseptic." It is pertinent again, in the light of the World War to attest to the international character of the medical science by pointing out that the modern science of bacteriology and antisepsis was the product largely of a Frenchman, a German, and an Englishman.

The second epoch in the war on the infectious diseases marks the development of the vaccines and the immune sera, and here again we find among the great pioneers the Frenchman Pasteur, the German von Behring, the Englishman Wright, and the Japanese Kitasato.

The third epoch, and the one which promises to prove greater even than the two preceding, marks the achievement of a truly effective chemotherapy. The extraordinary growth and achievement of the chemical means for combating within the body of the host the microbic, and in some instances, the virus agents of disease, we have ourselves witnessed in the last few years. This last achievement is so vastly great, that we can appreciate it only by a deliberate account of its accomplishments.

Our chemotherapeutic agents, together with penicillin, have enabled us to gain much more than an even chance for survival in a number of diseases which heretofore were practically invariably fatal. To name but three instances, we can cite: pneumococcal meningitis, hemolytic streptococcal meningitis, and staphylococcal septicemia. Numerically more significant is the marked reduction in the mortality rates achieved through the use of chemotherapeutic agents in the more common and widespread diseases which heretofore carried with them a relatively high mortality rate. The classic example of this is, of course, the pneumonias.

No less significant, too, are what might be called the "unseen benefits of chemotherapy," namely their effectiveness in preventing complications—the secondary effects of injuries and diseases, which in time past frequently proved much more grievous than the initial disease or

condition. We see this not only in civil life, but more particularly today on our battle fields, where, through the use of the sulfanilamides and other compounds, those injured are spared serious infection. In civil life, an illustration is the rapid cure of gonorrhea and of early syphilis.

I have made reference to the short century of progress in our conquest of the infectious diseases, and have cited three epochs that characterize this achievement. There is a fourth one which needs to be noted, since it has a bearing on a new undertaking of the Academy. Medicine was not the only beneficiary of the great discoveries in bacteriology. Business and commerce also benefited enormously. Animal husbandry and food preservation are two instances. But then, significantly, business and industry have in turn become great benefactors of medicine, and this is notably the case in the fields of pharmacology, in the production of biologicals, and in the manufacture of the chemotherapeutic agents. The practice of modern medicine is inconceivable without scores of products made available to the practitioner through the industrial pharmaceutical organizations. The neighborhood druggist still plays a vital role in "filling the physician's prescription," but he fills it with products that have been made available to him by the pharmaceutical manufacturers. It is appropriate to recognize also that in recent years the pharmaceutical manufacturers have contributed substantially to research in the fields of therapy.

In recognition of the educational value of the research that is being done by these manufacturers, The New York Academy of Medicine has established a permanent exhibit of the newer remedial agents produced. It is the intent of the Academy to make available to the medical profession through this exhibit current information on the valid developments in chemotherapy, and in other forms of therapy.

As I have already said, the purpose of this year's Graduate Fortnight is devoted to the subject of "Infectious Diseases and their Treatment." On our program you will have the privilege of hearing the ablest scientists of our time.

In the name of The New York Academy of Medicine, I welcome you to one of our most thrilling Fortnights, for today Nature has released to us more and more of her secrets. Through this conference, as we look down the vista of the future of the art of healing, we realize that we have made substantial progress in the long march toward the greater fulfillment of our goal—the healing of the sick.